

REMARKS

Claims 4-8, 11-17, 20-24, 27-59 remain in the present application. Claims 8 and 50 are amended. Claims 17, 33, 36, and 39 are independent.

Interview

Applicants thank the Examiner for the telephonic interview conducted on October 15, 2003.

Claim Objection

With regard to claim 50, Applicants assert that the objection is now moot given the amendment of claim 50. Accordingly, Applicants respectfully request that the claim objection be withdrawn.

Rejections Under 35 U.S.C. § 112

Claim 8 has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claiming the subject matter which Applicants regard as the invention. Applicants assert that the rejection is now moot given the amendment to claim 8. Accordingly, Applicants respectfully request that the 35 U.S.C. § 112 rejection be withdrawn.

Rejections Under 35 U.S.C. § 103

Claims 4, 13, 14, 16, 17, 20, 29, 31-33, 36, 39, 41-44, 48 and 53 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Minami et al. (U.S. Patent No. 6,587,510). Applicants respectfully traverse.

With regard to claim 17, Applicants assert that Minami et al. fail to disclose a converting means for converting power up-adjust commands to power down-adjust commands when a detection means detects an increased interference condition and a duration of said detected increased interference condition does not exceed a first time threshold as recited in claim 17. Instead, Minami et al. disclose a control section that generates control data which lowers a transmission power if a carrier to interference power ratio is larger than a first threshold value. The control section also generates control data which raises the transmission power if the carrier to interference power ratio is smaller than a second threshold value. The control section further generates control data which holds the current transmission power, if the carrier to interference power ratio is between the first and the second threshold values. The carrier to interference power ratio is detected for each one band slot, so that the control section generates one control symbol per one band slot (Col. 6, lines 15-28). Minami et al. is silent as to detecting a duration of a detected increased interference condition that does not exceed a first time threshold. This shortcoming is also suggested by the Examiner.

The Examiner admits on page 4 of the Office Action that Minami et al. fail to disclose a “detected increased interference condition that does not exceed a first time threshold”. To make up for the shortcomings of Minami et al., the Examiner contends that at the time of the invention “such a feature of providing detecting means which can detect increased interference in an expedited amount of time would have been obvious to a person of ordinary skill in the art since such a feature would improve system performance and ensure that mobiles communicating in a system would not suffer unnecessarily from degraded communications for long amounts of time”[emphasis added].

Applicants challenge the Examiner’s use of official notice above under MPEP § 2144.04

(C). Initially, Applicants point out that claim 17 does not recite a “detecting means which can detect increased interference in an expedited amount of time”. It is not clear how the detecting means put forth by the Examiner maps to claim 17. For at least this reason, Applicants assert that the Examiner’s use of official notice is at best unclear and inappropriate.

A further problem with the Examiner’s analysis is that, when most broadly construed, the Examiner’s analysis is directed to a duration of a detecting means itself so as to expedite time. This is not the same as a duration of a detected increased interference condition that does not exceed a first time threshold.

Furthermore, the Examiner’s use of official notice does not address the shortcomings of Minami et al. The Examiner’s official notice is silent as to detecting a duration of a detected increased interference condition that does not exceed a first time threshold. Therefore, the Examiner’s official notice can not disclose or suggest a converting means for converting power up-adjust commands to power down-adjust commands when a detection means detects an increased interference condition and a duration of said detected increased interference condition does not exceed a first time threshold as recited in claim 17.

The Examiner has provided no proper 35 U.S.C. § 103 combination to overcome the deficiencies of Minami et al. Claim 17 is not rendered obvious to one skilled in the art by Minami et al.

With regard to independent claims 33, 36 and 39, these claims include similar limitations to claim 17 and are allowable for at least the same reasons as stated above for independent claim 17.

Claims 4, 13, 14, 16, 20, 29, 31, 32, 41-44, 48 and 53 are allowable at least because they depend from one of independent claims 17, 36, and 39.

Accordingly, Applicants respectfully request that the art grounds of rejection be withdrawn.

Claims 5-8, 11, 12, 21, 22-24, 27, 28, 34, 35, 37, 38 and 40 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Minami et al. as applied to claim 17, and further in view of Chheda et al. (U.S. Patent No. 6,181,738). Applicants respectfully traverse.

As shown above, Minami et al. fail to disclose a duration of a detected increased interference condition that does not exceed a first time threshold as recited in claim 17. Applicants assert the Chheda et al. reference is likewise deficient.

The Chheda et al. reference is directed to a reverse power control using a frame quality metric. Chheda et al. disclose that if a frame quality metric is less than a threshold, normal power control is resumed. If a frame quality metric is greater than or equal to the threshold, a newly set target energy-to-noise ratio is decreased by a specific amount. The target energy-to-noise ratio is continually decreased by the specific amount until the frame rate changes or the target reaches the required energy-to-noise ratio indicated by a bad frame or lower frame quality metric (Abstract). Chheda et al. are silent as to a duration of a detected increased interference condition that does not exceed a first time threshold. Therefore, claim 17 is not obvious to one skilled in the art by Minami et al. in view of Chheda et al.

Claims 5-8, 11, 12, 21, 22-24, 27, 28, 34, 35, 37, 38 and 40 are allowable at least because they depend from claim 17 which Applicants have shown to be allowable. Accordingly, Applicants respectfully request that the art grounds of rejection be withdrawn.

Claims 15 and 30 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Minami et al. as applied to claims 17 and 39 and further in view of Padovani (U.S. Patent No. 6,192,249). Applicants respectfully traverse.

As discussed above, Minami et al. fail to disclose a duration of a detected increased interference condition that does not exceed a first time threshold as recited in claims 17 and 39.

The Padovani reference is directed to a method and apparatus for reverse link loading estimation. Padovani discloses a wireless communication system that in order to determine a level of loading, enters a period of silence during which a designated remote unit continues to transmit but other remote unit transmissions are interrupted. A base station and designated remote unit perform close-loop power control on a reverse link signal received from the designated remote unit. A first series power control command accumulated in a first corresponding transmit gain adjustment value is stored and normal operation is resumed. In performing a subsequent iteration, the base station and designated remote unit perform closed-loop power control on a reverse link signal received from the designated remote unit. The second series of power control commands accumulated in a second corresponding transmit gain adjustment value are stored. Padovani is silent as to a duration of a detected increased interference condition that does not exceed a first time threshold. Therefore, claims 17 and 39 are not rendered obvious to one skilled in the art by Minami et al. in view of Padovani.

Claims 15 and 30 are allowable at least because they depend from one of independent claims 17 and 39.

Accordingly, Applicants respectfully request that the art grounds of rejection be withdrawn.

Allowable Subject Matter

Initially, Applicants thank the Examiner for indicating that claims 45-47, 49-52, 54 and 55 are allowable. Claims 45-47, 49-52, 54 and 55 have not been put into independent form because they depend from one of independent claims 17, 33, 36, and 39, which Applicants have shown to be allowable.

CONCLUSION

In view of the foregoing, Applicants submit that claims 4-8, 11-17, 20-24, and 27-59 are patentable over the relied upon references, and that the application as a whole is in condition for allowance. Early and favorable notice to that effect is respectfully solicited.

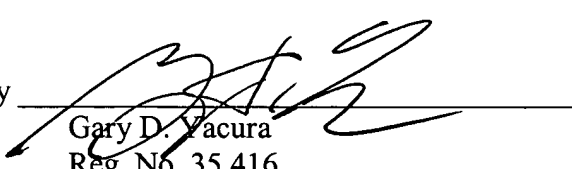
In the event that any matters remain at issue in the application, the Examiner is invited to contact the undersigned at (703) 668-8000 in the Northern Virginia area, for the purpose of a telephonic interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY & PIERCE, P.L.C.

By


Gary D. Vacura
Reg. No. 35,416

P.O. Box 8910
Reston, VA 20195
(703) 668-8000

GDY/RFS:ewd